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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,812	06/22/2006	Richard Cooper	51687-0261 (331126)	4921
23370	7590	02/03/2011	EXAMINER	
JOHN S. PRATT, ESQ KILPATRICK TOWNSEND & STOCKTON LLP 1100 PEACHTREE STREET SUITE 2800 ATLANTA, GA 30309			KAUSHAL, SUMESH	
			ART UNIT	PAPER NUMBER
			1633	
			NOTIFICATION DATE	DELIVERY MODE
			02/03/2011	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ipefiling@kilpatricktownsend.com  
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## Office Action Summary

Application No.

10/583,812

Applicant(s)

COOPER ET AL.

Examiner

Sumesh Kaushal

Art Unit

1633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7, 13-20, 22, 24 and 25 is/are pending in the application.
- 4a) Of the above claim(s) 5, 13, 15-20, 24 and 25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 7, 14 and 22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

Applicant's response filed on 11/05/10 has been acknowledged and fully considered.

#### *Election/Restrictions*

Applicant's election without traverse of Group I, Claims 1-4, 6-7, 14 and 22, wherein the elected species of interest is "protein" in the reply filed on 11/05/10 is acknowledged. Furthermore, species election of claim 22 is withdrawn in response to applicant response filed on page 6. Claim 5 encompasses nonelected species (nucleic acid).

Claims 5, 13, 15-20, 24-25 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 11/05/10.

#### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Copper (US 5719055, 1998). The instant claims are drawn to an expression vector comprising the transposase gene operably link to a promoter and a gene of interest operably linked to additional promoters, wherein the a gene of interest operably linked to additional promoters are flanked by transposase insertion sequences.

The cited art teaches a vector for inserting an exogenous gene into a chromosome of a eukaryotic cell, comprising: a gene encoding a bacterial transposase; two transposon insertion sequences recognized by the transposase; said exogenous gene, wherein said exogenous gene is between the two transposon insertion

Art Unit: 1633

sequences; and a promoter that is operably linked to said transposase gene; wherein one of said insertion sequences is located between said transposase gene and said exogenous gene (see col.27-28). The cited art further teaches that the vector encoding protein of interest (col. 3-6). Thus the cited art clearly anticipates the invention as claimed.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-3, 6-7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Copper (US 5719055, 1998) as applied to claims 1, 4 and 22 above, and further in view of Chang (US 5693508, 1997).

The teaching of Copper has been described above. Even though Copper teaches a transposon-based expression vector, the cited art does not teach the vector comprising Poly A nucleotide sequences.

Chang teaches that efficient expression of recombinant DNA sequences in eucaryotic cells requires expression of signals directing the efficient termination and polyadenylation of the resulting transcript. The cited art teaches that poly A sequence directs both the termination and polyadenylation of the nascent RNA transcript. Efficient polyadenylation of the recombinant transcript is desirable as transcripts lacking a poly A tail are unstable and are rapidly degraded. The cited art further teaches that a commonly used poly A signal is the SV40 poly A signal (see col. 17, line 49).

Thus it would have been obvious to one ordinary skilled in the art at the time the instant invention was made to modify the invention of Copper with Chang by incorporating the Poly A nucleotide sequences at 3' end of gene of interest. One would

Art Unit: 1633

have been motivated to do so to enhance the efficient termination of the transcripts. One would have a reasonable expectation of success, since use of Poly A sequences in expression vectors has been routine in the art at time the instant invention was made. Thus the invention as claimed is prima facie obvious in view of cited prior art of record.

### ***Conclusion***

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sumesh Kaushal whose telephone number is 571-272-0769. The examiner can normally be reached on Mon-Fri. from 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Woitach can be reached on 571-272-0739. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sumesh Kaushal/  
Primary Examiner, Art Unit 1633

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